

**PATENT** 

#### **CERTIFICATE OF MAILING**

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the Commissioner of Patents and Trademarks, Washington, D.C 20231.

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:

Daggett, et al.

Parent Serial 10/038,937 - Case No.: SD9383DDA

No.:

Art Unit:

1646

Examiner: Unknown

Filed:

January 4, 2002

For:

HUMAN N-METHYL-D-ASPARTATE

RECEPTOR SUBUNITS, NUCLEIC ACIDS

ENCODING SAME AND USES THEREFOR

**Assistant Commissioner for Patents** Washington, D.C. 20231

## SECOND PRELIMINARY AMENDMENT

Sir:

This preliminary amendment accompanies a request under 37 CFR §1.53(b) to file a Divisional application based on Serial No. 09/935,105, filed September 29, 1997, which is a Divisional of 08/231,193, filed April 20, 1994. Prior to examination of the application and claims, please amend the application as follows:

#### **IN THE SPECIFICATION:**

Please amend the specification as follows:

At page 7, line 1, replace "2E, 2F, 2G, 2H, 2I, 2J, 2K, 2L, 2M, 2N, or 2P" with - 20, 22, 24, 26, 28, 30, 32, 34, 36, 38 or 40 -.

At page 7, line 3, replace "2E, 2F, 2G, 2H, 2I or 2P" with -20, 22, 24, 26, 28 or 40 -.

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At page 7, line 7, replace "Nos. 1, 1A, 1B, 1C, 1D, 1E, 1F, 1G, 1H, 1I, 1J, 1K, 1L, 1M, 1N, or 1P" with - No. 1, nucleotides 320-3402 of Sequence ID No. 1, or Sequence ID Nos. 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37 or 39 –.

At page 7, line 10, replace "1E, 1F, 1G, 1H, 1I or 1P" with - 19, 21, 23, 25, 27 or 39

At page 8, line 33, replace "1E, 1F, 1G, 1H, 1I, 1J, 1K, 1L, 1M, 1N, or 1P" with - 19, 21, 23, 25, 27, 29, 31, 35, 37 or 39 –.

At page 8, lines 34-35, replace 1E, 1F, 1G, 1H, 1I or 1P" with - 19, 21, 23, 25, 27 or 39 -.

At page 10, line 34, replace "Sequence ID No. 14" with - Sequence ID No. 56 -.

At page 11, line 2, replace "ID No. 13," with - ID No. 55 -.

At page 11, line 5, replace Sequence ID No. 13." with - Sequence ID No. 55 -.

At page 11, line 8, replace "6E, 6F, 6G, 6H or 6I" with – 46, 48, 50, 52 or 54 –.

At page 11, line 12, replace "5A, 5B, 5C, 5D, 5E, 5F, 5G, 5H or 5I" with - 41, 43 or 44 or nucleotides 1-3025 of Sequence ID No. 5 or Sequence ID Nos. 45, 47, 49, 51 or 53 -.

At page 11, line 15, replace "5E, 5F, or 5G" with - 45, 47 or 49 -.

At page 11, line 18, replace "5E, 5F, 5G, 5H or 5I" with - 45, 47, 49, 51 or 53 -.

At page 11, line 19, replace "5E, 5F, or 5G" with – 45, 47 or 49 –.

At page 11, line 23, replace "Sequence ID No. 16" with - Sequence ID No. 58 -.

At page 11, line 26, replace "Sequence ID No. 15" with Sequence ID No.

57 **–**.

At page 11, line 29, replace "Sequence ID No. 15" with - Sequence ID No. 57 -.

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At page 11, line 33, replace SEQ ID Nos. 1, 1A-1P, 5, 5A-5I, 10, 13 or 15" with -Sequence ID No. 1, nucleotides 320-3402 of Sequence ID No. 1, Sequence ID Nos. 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 5, 41, 43 or 44, nucleotides 1-3025 of Sequence ID No. 5 or Sequence ID Nos. 45, 47, 49, 51, 53, 10, 55 or 57 –.

At page 12, lines 2-3, replace "SEQ ID Nos. 1, 1A-1P, 5, 5A-5I, 10, 13 or 15." with -Sequence ID No. 1, nucleotides 320-3402 of Sequence ID No. 1, Sequence ID Nos. 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 5, 41, 43 or 44, nucleotides 1-3025 of Sequence ID No. 5 or Sequence ID Nos. 45, 47, 49, 51, 53, 10, 55 or 57. -.

At page 27, line 9, replace "(see Sequence ID No. 1B for a description of a portion of NMDA11)" with - (see description of Sequence ID No. 13 in Summary of Sequences for a description of a portion of NMDA11) -.

At page 27, line 12, replace "Sequence ID No. 1D" with - Sequence ID No. 17 -.

At page 27, line 13, replace "Sequence ID No. 1C" with - Sequence ID No. 15 -.

At page 27, line 13-14, replace "(see Sequence ID No. 1A for a description of a portion of NMDA10)" with - (which encodes a 3083 nucleotide sequence comprising nucleotides 320-3402 of Sequence ID No. 1) -.

At page 33, line 33, replace "ID N. 1" with - ID No. 1 -.

At page 35, line 26, replace "Sequence ID No. 1J" with - Sequence ID No. 29 -.

At page 35, line 27, replace "Sequence ID No. 1K" with - Sequence ID No. 31 -.

At page 35, line 28, replace "Sequence ID No. 1M" with - Sequence ID No. 35 -

At page 35, line 29, replace "Sequence ID No. 1N" with – Sequence ID No. 37 –.

At page 35, line 30, replace "Sequence ID No. 1L" with - Sequence ID No. 33 -.

At page 37, line 27, replace "Sequence ID No. 5D" with - nucleotides 1-3025 of Sequence ID No. 5 -.

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At page 37, line 28, replace "ID No. 5C" with - ID No. 44 -.

At page 37, line 30, replace "ID No. 5B" with – ID No. 43 –.

At page 37, line 31, replace "Sequence ID No. 5A" with - Sequence ID No. 41 -.

At page 39, line 22, replace "Sequence ID No. 5E" with - Sequence ID No. 45 -.

At page 39, line 25, replace "Sequence ID No. 5F" with - Sequence ID No. 47 -.

At page 39, lines 28, replace "Sequence ID No. 5G" with - Sequence ID No. 49 -.

At page 39, line 31, replace "Sequence ID No. 5H" with - Sequence ID No. 51 -.

At page 40, line 1, replace "Sequence ID No. 51" with - Sequence ID No. 53 -.

At page 40, line 16, replace "Sequence ID No. 17" with - Sequence ID No. 59 -.

At page 40, lines 16-17, replace "Sequence ID No. 18" with - Sequence ID No. 60 -.

At page 40, line 17, after "SE345" replace "(Sequence ID No. 19)" with - (Sequence ID No. 61) -.

At page 40, line 17, replace "Sequence ID No. 20" with - Sequence ID No. 62 -.

At page 40, lines 29-30, replace "Sequence ID Nos. 17 and 18" with – Sequence ID Nos. 59 and 60 –.

At page 40, line 31, replace "Sequence ID No. 19" with - Sequence ID No. 61 -.

At page 40, lines 31-32, replace "Sequence ID No. 20" with - Sequence ID No. 62 -.

At page 41, line 13, replace "Sequence ID No. 21", with - Sequence ID No. 63 -.

At page 44, line 32, replace "Sequence ID No. 13" with - Sequence ID No. 55 -.

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At page 44, line 33, replace "Sequence ID No. 13" with – Sequence ID No. 55 –.

At page 45, line 1, replace "Sequence ID No. 13" with - Sequence ID No. 55 -.

At page 45, line 31, replace "Sequence ID No. 15" with - Sequence ID No. 57 -.

At page 46, line 12, replace "Sequence ID No. 15" with - Sequence ID No. 57 -.

At page 46, line 17, replace "Sequence ID No. 15" with - Sequence ID No. 57 -.

At page 46, line 28, replace "Sequence ID No. 15" with - Sequence ID No. 57 -.

At page 47, line 6, replace "Sequence ID No. 15" with -Sequence ID No. 57 -.

At page 47, line 7, replace "Sequence ID No. 15" with - Sequence ID No. 57 -.

At page 47, line 14, replace "Sequence ID No. 15" with - Sequence ID No. 57 -.

At page 47, lines 15-16, replace "Sequence ID No. 15" with - Sequence ID No. 57 -.

At page 47, line 17, replace "Sequence ID No. 15" with – Sequence ID No. 57 –.

At page 61, lines 1-2, replace "Sequence ID No. 1A is a 3083 nucleotide sequence encoded by clone NMDA10, comprising nucleotides 320-3402 of Sequence ID No. 1. Thus, Sequence ID No. 1A" with – Clone NMDA10 encodes a 3083 nucleotide sequence comprising nucleotides 320-3402 of Sequence ID No. 1. Thus, this sequence encoded by the NMDA10 clone –.

At page 61, line 5, replace "Sequence ID No. 1B" with - Sequence ID No. 13 -.

At page 61, line 7, replace "Sequence ID No. 1B" with - Sequence ID No. 13 -.

At page 61, line 11, replace "Sequence ID No. 1C" with - Sequence ID No. 15 -.

At page 61, line 14, replace "Sequence ID No. 1C" with - Sequence ID No. 15 -.

At page 61, line 21, replace "Sequence ID No. 1D" with - Sequence ID No. 17 -.

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At page 61, line 23, replace "Sequence ID No. 1D" with - Sequence ID No. 17 -. At page 61, line 27, replace "Sequence ID No. 1E" with – Sequence ID No. 19 –. At page 61, line 29, replace "Sequence ID No. 1E" with - Sequence ID No. 19 -. At page 61, line 34, replace "Sequence ID No. 1F" with – Sequence ID No. 21 –. At page 62, line 3, replace "Sequence ID No. 1F" with - Sequence ID No. 21 -. At page 62, line 4, replace "Sequence ID No. 1G" with - Sequence ID No. 23 -. At page 62, line 7, replace "Sequence ID No. 1G" with - Sequence ID No. 23 -. At page 62, line 8, replace "Sequence ID No. 1H" with - Sequence ID No. 25 -. At page 62, lines 8-9, replace "Sequence ID No. 1G" with - Sequence ID No. 23 --. At page 62, line 9, replace "Sequence ID No. 1H" with - Sequence ID No. 25 -. At page 62, line 11, replace "Sequence ID No. 11" with - Sequence ID No. 27 -. At page 62, line 12, replace "Sequence ID No. 11" with - Sequence ID No. 27 -. At page 62, line 13, replace "Sequence ID No. 1H" with – Sequence ID No. 25 –. At page 62, line 13, replace "Sequence ID No. 11" with - Sequence ID No. 27 -. At page 62, line 15, replace "Sequence ID No. 1J" with - Sequence ID No. 29 -. At page 62, line 16, replace "Sequence ID No. 1J" with - Sequence ID No. 29 -. At page 62, line 17, replace "Sequence ID No. 1J" with - Sequence ID No. 29 -. At page 62, line 19, replace "Sequence ID No. 1K" with - Sequence ID No. 31 -. At page 62, line 20, replace "Sequence ID No. 1K" with - Sequence ID No. 31 -.

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At page 62, line 21, replace "Sequence ID No. 1K" with - Sequence ID No. 31 -. At page 62, line 24, replace "Sequence ID No. 1L" with - Sequence ID No. 33 -. At page 62, line 25, replace "Sequence ID No. 1L" with - Sequence ID No. 33 -. At page 62, line 26, replace "Sequence ID No. 1L" with - Sequence ID No. 33 -. At page 62, line 29, replace "Sequence ID No. 1M" with - Sequence ID No. 35 -. At page 62, line 30, replace "Sequence ID No. 1M" with - Sequence ID No. 35 -. At page 62, line 31, replace "Sequence ID No. 1G" with - Sequence ID No. 23 -. At page 62, line 31, replace "Sequence ID No. 1M" with - Sequence ID No. 35 -. At page 62, line 33, replace "Sequence ID No. 1N" with - Sequence ID No. 37 -. At page 62, line 34, replace "Sequence ID No. 1N" with - Sequence ID No. 37 -. At page 62, line 35 and page 63, line 1, replace "Sequence ID No. 1G" with -Sequence ID No. 23 -.

> At page 63, line 1, replace "Sequence ID No. 1N" with -Sequence ID No. 37 -. At page 63, line 3, replace "Sequence ID No. 1P" with -Sequence ID No. 39 -. At page 63, line 4, replace "Sequence ID No. 1P" with - Sequence ID No. 39 -. At page 63, line 5, replace "Sequence ID No. 1H" with - Sequence ID No. 25 -. At page 63, line 5, replace "Sequence ID No. 1P" with - Sequence ID No. 39 -. At page 63, delete lines 9-11.

> At page 63, line 12, replace "Sequence ID No. 2B" with - Sequence ID No. 14 -.

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At page 63, line 13, replace "Sequence ID No. 1B" with - Sequence ID No. 13 -. At page 63, line 14, replace "Sequence ID No. 2C" with - Sequence ID No. 16 -. At page 63, lines 15-16, replace "Sequence ID No. 1C" with - Sequence ID No. 15 -. At page 63, line 17, replace "Sequence ID No. 2D" with -Sequence ID No. 18 -. At page 63, lines 18-19, replace "Sequence ID No. 1D" with - Sequence ID No. 17 -. At page 63, line 20, replace "Sequence ID No. 2E" with - Sequence ID No. 20 -. At page 63, line 21, replace "Sequence ID No. 1E" with - Sequence ID No. 19 -. At page 63, line 22, replace "Sequence ID No. 2F" with - Sequence ID No. 22 -. At page 63, line 23, replace "Sequence ID No. 1F" with - Sequence ID No. 21 -. At page 63, line 24, replace "Sequence ID No. 2G" with - Sequence ID No. 24 -. At page 63, line 25, replace "Sequence ID No. 1G" with - Sequence ID No. 23 -. At page 63, line 26, replace "Sequence ID No. 2H" with - Sequence ID No. 26 -. At page 63, line 27, replace "Sequence ID No. 1H" with - Sequence ID No. 25 -. At page 63, line 28, replace "Sequence ID No. 21" with - Sequence ID No. 28 -. At page 63, line 29, replace "Sequence ID No. 11" with - Sequence ID No. 27 -. At page 63, line 30, replace "Sequence ID No. 2J" with - Sequence ID No. 30 -. At page 63, line 31, replace "Sequence ID No. 1J" with - Sequence ID No. 29 -. At page 63, line 32, replace "Sequence ID No. 2K" with - Sequence ID No. 32 -. At page 63, line 33, replace "Sequence ID No. 1K" with - Sequence ID No. 31 -. At page 63, line 34, replace "Sequence ID No. 2L" with - Sequence ID No. 34 -.

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At page 63, line 35, replace "Sequence ID No. 1L" with – Sequence ID No. 33 –.

At page 64, line 1, replace "Sequence ID No. 2M" with – Sequence ID No. 36 –.

At page 64, line 2, replace "Sequence ID No. 1M" with – Sequence ID No. 35 –.

At page 64, line 3, replace "Sequence ID No. 2N" with – Sequence ID No. 38 –.

At page 64, line 4, replace "Sequence ID No. 1N" with – Sequence ID No. 37 –.

At page 64, line 5, replace "Sequence ID No. 2P" with – Sequence ID No. 40 –.

At page 64, line 6, replace "Sequence ID No. 1P" with – Sequence ID No. 39 –.

At page 64, line 14, replace "Sequence ID No. 5A" with – Sequence ID No. 41 –.

At page 64, line 16, replace "Sequence ID No. 5A" with – Sequence ID No. 41 –.

At page 64, line 19, replace "Sequence ID No. 5B" with – Sequence ID No. 43 –.

At page 64, line 22, replace "Sequence ID No. 5B" with – Sequence ID No. 43 –.

At page 64, line 27, replace "Sequence ID No. 5C" with – Sequence ID No. 44 –.

At page 64, line 31, replace "Sequence ID No. 5C" with – Sequence ID No. 44 –.

At page 65, lines 3-5, replace "Sequence ID No. 5D is a 3025 nucleotide sequence encoded by clone NMDA26, comprising nucleotides 1-3025 of Sequence ID No. 5. Thus, Sequence ID No. 5D differs from" with – Nucleotides 1-3025 of Sequence ID No. 5 are a 3025 nucleotide sequence encoded by clone NMDA26. Thus, this sequence differs from –.

At page 65, line 11, replace "Sequence ID No. 5F" with – Sequence ID No. 45 –.

At page 65, line 11, replace "Sequence ID No. 5F" with – Sequence ID No. 47 –.

At page 65, line 14, replace "Sequence ID No. 5G" with – Sequence ID No. 49 –.

At page 65, line 17, replace "Sequence ID No. 5H" with – Sequence ID No. 51 –.

At page 65, line 18, replace "Sequence ID No. 5H" with – Sequence ID No. 51 –.

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At page 65, lines 18-19, replace "Sequence ID No. 5F" with - Sequence ID No. 47 -.

At page 65, line 19, replace "Sequence ID No. 5H" with - Sequence ID No. 51 -.

At page 65, line 22, replace "Sequence ID No. 51" with - Sequence ID No. 53 -.

At page 65, line 23, replace "Sequence ID No. 5I" with - Sequence ID No. 53 -.

At page 65, lines 23-24, replace "Sequence ID No. 5G" with -Sequence ID No. 49 -.

At page 65, line 24, replace "Sequence ID No. 51" with - Sequence ID No. 53 -.

At page 65, line 28, replace "Sequence ID No. 6A" with – Sequence ID No. 42 –.

At page 65, lines 29-30, replace "Sequence ID No. 5A" with - Sequence ID No. 41 -.

At page 65, line 31, replace "Sequence ID No. 6B is the" with - The -.

At page 65, lines 32-33, replace "Sequence ID No. 5B." with - Sequence ID No. 43 is set forth in Sequence ID No. 43. -.

At page 66, line 1, replace "Sequence ID No. 6C is the" with - The -.

At page 66, lines 2-3, "Sequence ID No. 5C." with - Sequence ID No. 44 is set forth in Sequence ID No. 44. -.

At page 66, delete lines 4-6.

At page 66, line 7, replace "Sequence ID No. 6E" with - Sequence ID No. 46 -.

At page 66, line 8, replace "Sequence ID No. 5E" with - Sequence ID No. 45 -.

At page 66, line 9, replace "Sequence ID No. 6F" with - Sequence ID No. 48 -.

At page 66, line 10, replace "Sequence ID No. 5F" with - Sequence ID No. 47 -.

At page 66, line 11, replace "Sequence ID No. 6G" with - Sequence ID No. 50 -.

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At page 66, line 13, replace "Sequence ID No. 6H" with – Sequence ID No. 52 –.

At page 66, line 14, replace "Sequence ID No. 5H" with – Sequence ID No. 51 –.

At page 66, line 15, replace "Sequence ID No. 6I" with – Sequence ID No. 54 –.

At page 66, line 16, replace "Sequence ID No. 5I" with – Sequence ID No. 53 –.

At page 66, line 18, replace "5C, 5E and 5H" with – 44, 45 and 51 –.

At page 66, line 25, replace "5B and 5C." with – 43 and 44. –.

At page 67, line 1, replace "Sequence ID No. 13" with – Sequence ID No. 55 –.

At page 67, line 2, replace "Sequence ID No. 14" with – Sequence ID No. 56 –.

At page 67, line 3, replace "Sequence ID No. 13" with – Sequence ID No. 55 –.

At page 66, line 12, replace "Sequence ID No. 5G" with – Sequence ID No. 49 –.

At page 67, line 10, replace "Sequence ID No. 17-20" with – Sequence ID No. 59-62

At page 89, line 22, replace "Sequence ID No. 21" with - Sequence ID No. 63 -.

At page 67, line 5, replace "Sequence ID No. 15" with – Sequence ID No. 57 –.

At page 67, line 6, replace "Sequence ID No. 16" with - Sequence ID No. 58 -.

At page 67, line 7, replace "Sequence ID No. 15" with - Sequence ID No. 57 -.

#### IN THE CLAIMS:

Amend Claim 39 with the clean version provided immediately below to read as follows:

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39. The receptor according to claim 37, where the receptor is a human N-methyl-D-aspartate receptor type 2B subunit (NMDAR2B).

### **REMARKS**

Any additional fees required in connection with this submission may be taken from Merck Deposit Account No. 13-2755.

If the Examiner believes that a telephone conference would be of value, he is requested to call the undersigned counsel at the number listed below.

Respectfully submitted,

Vineet Kohli

Reg. No. 37,003 Attorney for Applicant

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4/18/02

10036937 OFFICE

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# VERSION OF AMENDED CLAIMS WITH MARKINGS TO SHOW CHANGES MADE

The receptor according to claim 37, where the receptor is a human N-methyl-39. D-aspartate receptor type [2D] <u>2B</u> subunit [(NMDAR2D)] (NMDAR2B).